



PLANT ENZYME DIGESTIVE FORMULA

VEGETARIAN ENZYME BLEND TO SUPPORT OPTIMUM DIGESTION AND NUTRIENT ABSORPTION

90 VEGETARIAN CAPSULES | NPN80108649 | PEF090-CN

Plant Enzyme Digestive Formula is comprised of a proprietary blend of broad-spectrum microbial-based digestive enzymes to support optimal digestion of proteins, fats, and carbohydrates. This digestive support formula may be especially helpful for the improved digestion of plant foods such as grains and beans, as well as dairy products, which commonly induce digestive upset due to antinutritional factors found in plants such as protease inhibitors, tannins, lectins and phytates.¹⁻³

Plant Enzyme Digestive Formula is provided in a vegetable capsule that contains no animal products or betaine HCl (hydrochloric acid), making it an ideal comprehensive formula for vegetarians and vegans, and for patients with stomach and esophageal problems who cannot tolerate additional HCl or already have sufficient HCl activity. Compared to their animal-based counterparts, microbial-derived enzymes have greater pH stability and can work over a broader pH range within the GI tract, able to survive its harsh environment.⁴ Supplementation with digestive enzymes may be beneficial for occasional gas, bloating, abdominal discomfort, bowel irregularity, or a feeling of excessive fullness after eating a small amount of food, and some gastrointestinal diseases.^{5,6}

The mechanical and enzymatic breakdown of food begins in the mouth, but the stage for efficient digestion is truly set in the stomach. Stomach acid (HCl) denatures proteins, unraveling them in order to give proteases more surface area to work upon. It also provides the proper acidity to trigger the release of bicarbonate ions in the duodenum, which creates the alkaline environment required for optimal efficacy of pancreatic enzymes in the small intestine.⁷ The pancreas produces enzymes that are required for digestion and absorption of food. Enzymes secreted by the pancreas include lipases, proteases, and amylases, which digest fats, proteins, and starches, respectively. Proper functioning of the digestive tract is crucial for the overall health of the body.

Deficiency of endogenous production of digestive enzymes may lead to occasional signs of indigestion, such as mild gas, bloating, constipation, and feeling excessively full after meals.⁸ Weakened digestion means the body will not effectively absorb vitamins, minerals, fats, or amino acids, leading to nutrient deficiencies and imbalanced fatty acid ratios which may detrimentally affect the functioning of other areas of the body including the immune system, bone, and joint health, energy levels, balanced moods, reproductive health, and more.

Acute and chronic stressors, food sensitivities (e.g., gluten, dairy), eating on the run, certain medications, alcohol use, aging, and a number of health conditions can compromise digestive function. Fortunately, plant-based enzymes can assist in the healthy breakdown and assimilation of foods.

Plant Enzyme Digestive Formula includes broad-spectrum support for digesting carbohydrates, proteins, and fats:

- **Carbohydrate-digesting enzymes:** amylase, glucoamylase, cellulase, hemicellulase, diastase, betaglucanase, and invertase. These are included for the breakdown of simple sugars as well as complex carbohydrates, starches, and fiber. This product also contains lactase, for the digestion of lactose – the ‘milk sugar.’⁹
- **Protein-digesting enzymes:** protease, acid protease, alpha-galactosidase, protease SP
- **Fat-digesting enzyme:** lipase

Food Allergies

Individuals who do not secrete enough proteases and amylases, and who have impaired gastric digestion may suffer from food allergies.^{10,11} Evidence suggests protease/antiprotease imbalances in the gut contribute to increased intestinal permeability and epithelial damage as the mucosal barrier is thin and highly susceptible to proteolysis, and therefore proteases play a significant role in regulated intestinal permeability.^{12,13} Failure to digest food allows for large molecules of the undigested food to be absorbed and contribute to such problems as food allergies, colitis, and immune system imbalances. Proteases are essential in preventing the deposit of immune complexes in body tissue, and gastric digestion has been shown to significantly reduce IgE binding and histamine release capacity.¹⁰ Undigested food also allows yeast organisms to thrive.¹⁴ Thus, those with an overgrowth of *Candida albicans* may benefit from supplementation with Plant Enzyme Digestive Formula.

Inflammation

Proteases are important in helping to prevent tissue damage during inflammation and the formation of fibrin clots.¹⁵ Fibrin promotes inflammation by forming a wall around the area of inflammation that results in the blockage of blood which leads to swelling. Fibrin can also contribute to the development of blood clots that have the potential to dislodge and produce strokes or heart attacks.

PLANT ENZYME DIGESTIVE FORMULA MAY BENEFIT:

- Malabsorption conditions
- Weakened digestive and assimilation
- Lactose intolerance⁹
- Occasional indigestion, bloating, gas, constipation, excessive fullness
- Those who cannot tolerate betaine HCl supplementation
- Those with food allergies/sensitivities
- Vegetarians and vegans

Medicinal Ingredients (per capsule):

alpha-Amylase (<i>Aspergillus flavus var. oryzae</i> - Whole) 3500 FCC DU.....	21.21 mg
Protease (<i>Aspergillus flavus var. oryzae</i> - Whole) 15000 FCC HUT.....	15.79 mg
Fungal protease (<i>Aspergillus flavus var. oryzae</i> - Whole) 7500 FCC HUT.....	9.38 mg
Lactase (<i>Aspergillus flavus var. oryzae</i> - Whole) 750 FCC ALU.....	7.5 mg
Glucoamylase (<i>Aspergillus niger</i> - Whole) 6 FCC Glucoamylase Units.....	5 mg
alpha-Galactosidase (<i>Aspergillus niger</i> - Whole) 110 FCC GalU.....	3.67 mg
beta-Glucanase (<i>Trichoderma longibrachiatum</i> - Whole) 10 FCC BGU.....	3.33 mg
Fungal protease (<i>Aspergillus niger</i> - Whole) 13 FCC SAPU.....	2.36 mg
Phytase (<i>Aspergillus niger</i> - Whole) 7 FCC PU.....	2.19 mg
Cellulase (<i>Trichoderma longibrachiatum</i> - Whole) 250 FCC CU.....	1.39 mg
Hemicellulase (<i>Aspergillus niger</i> - Whole) 1000 FCC HCU.....	1.25 mg
Invertase (<i>Saccharomyces cerevisiae</i> - whole) 150 FCC SU.....	0.75 mg
Diastase (<i>Aspergillus flavus var. oryzae</i> - Whole) 200 FCC DP ⁹	0.67 mg
Lipase (<i>Candida cylindracea</i> - Whole cell) 312.5 FCC LU.....	0.42 mg

Non-Medicinal Ingredients: Microcrystalline cellulose, cellulose (capsule), vegetable stearate. **Recommended Dose:** Adults: Take 1 capsule per day. Swallow whole. Do not crush or chew. Take with or immediately before food. Consult a health care practitioner for prolonged use. Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Healthcare practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage. Any product containing botanical substances has the potential for causing individual sensitivities. Individual monitoring, including liver function tests, may be appropriate.

REFERENCES

For a list of references cited in this document, please visit: <https://www.designsforhealth.com/techsheet-references/plant-enzyme-digestive-formula-references.pdf>



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Designs for Health's **Plant Enzyme Digestive Formula** delivers 105 mg of PhytoENZ™ blend per 1-capsule serving to support the digestion of proteins, fats, and carbohydrates. Many factors in the modern diet and lifestyle can interfere with efficient digestion, including psychological stress, food sensitivities, eating on the run, aging, and several other health concerns. As a result, even if a person eats a healthy diet, they may not receive the full level of nutritional benefits they expect from their food. Weakened digestion can negatively affect numerous areas of the body, including the immune system, energy production, balanced mood, reproductive health, musculoskeletal health, and more. Digestive enzymes may enhance the proper digestion and absorption of

food and essential nutrients, such as vitamins, minerals, carbohydrates, fats, and proteins, to support overall health.

The Plant Enzyme Digestive Formula contains bioavailable, broad-spectrum, microbial-based digestive enzymes that may help with occasional heartburn, gas, upset stomach, and bloating associated with improper digestion. It does not contain animal products and is suitable for vegetarians and vegans. It may be especially helpful for the digestion of plant foods, such as grains, beans, and dairy products that commonly induce digestive upset.

Benefits

- Supports proper digestion and absorption of food and nutrients
- Promotes gastrointestinal health

Recommended Dose

Adults: Take 1 capsule per day. Swallow whole. Do not crush or chew. Take with or immediately before food. Consult a health care practitioner for prolonged use.

Highlights

- Delivers 105 mg of PhytoENZ™ blend per 1-capsule serving
- Contains bioavailable, broad-spectrum, microbial-derived digestive enzymes
- Designed to promote digestion and nutrient absorption of carbohydrates, proteins, and fats, and may be particularly helpful for vegetarians and vegans
- May help the occasional heartburn, gas, upset stomach, and bloating associated with improper digestion
- Does not contain animal products
- Non-GMO

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